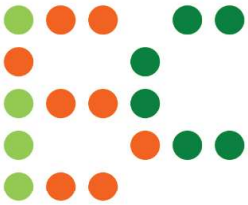
2022 Indian Sudoku Championship

Instructions Booklet

21st August 2022, Pune



sudoku mahabharat

Round Composition at a Glance

Round 1: Classics

9 puzzles

40 minutes

TOTAL **400** Points

Classic Sudoku	25
Classic Sudoku	30
Classic Sudoku	35
Classic Sudoku	30
Classic Sudoku	45
Classic Sudoku	45
Classic Sudoku	50
Classic Sudoku	60
Classic Sudoku	80

Round 2: Memory Lane

9 puzzles

55 minutes

TOTAL **550** Points

Classic Sudoku	30
(SM 1 Standard) Extra Regions Sudoku	55
(SM 1 Neighbours) Thermo Sudoku	85
(SM 2 Odd Even) Odd Even Sudoku	40
(SM 2 Hybrids) Battenburg + Killer Sudoku	80
(SM 3 Converse) Antiknight Sudoku	90
(SM 3 Outside) Outside Sudoku	45
(SM 4 Math) Arrow Sudoku	60
(SM 4 Irregular) Parquet Sudoku	65

Round 3:
Uncharted Waters

10 puzzles

65 minutes

TOTAL
650
Points

Isometric Sudoku	30
Battery Sudoku	45
Windoku	50
Antidiagonal Sudoku	60
Outside + Palindrome Sudoku	70
Sequences Sudoku	75
Lockout Lines Sudoku	70
Consecutive Sudoku	85
Position Sums Sudoku	85
Double Strand Sudoku	80

Round 4:
Pyramid Scheme

10 puzzles

45 minutes

TOTAL
450
Points

Classic Sudoku	25
Sequences Sudoku	55
Monopoly Sudoku	55
Classic Sudoku	30
Clone Sudoku	55
Classic Sudoku	45
Battery Sudoku	50
Palindrome Sudoku	35
Equalizer Sudoku	55
Classic Sudoku	45

Contributors

Tawan Sunathvanichkul (Thailand) - Editor, Author, Tester
Sam Cappleman-Lynes (UK) - Author, Tester
Siyuan Luo (China) - Author, Tester
Sinchai Rungsangrattanakul (Thailand) - Author, Tester
Nikola Zivanovic (Serbia) - Author
Qianzi Li (China) - Author
Mingyi Wang (China) - Author
Tantan Dai (China) - Tester
Yanzhe Qiu (China) - Tester

Puzzle 1-9: Classic Sudoku

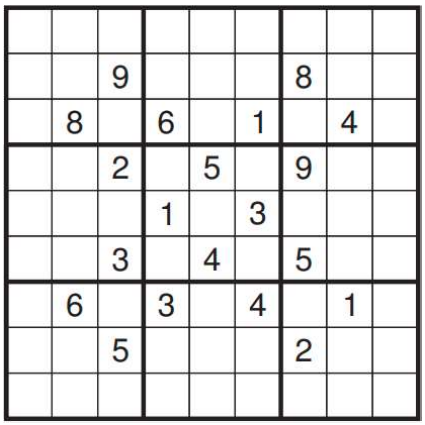
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

		9				8		
	8		6		1		4	
		2		5		9		
			1		3			
		3		4		5		
	6		3		4		1	
		5				2		

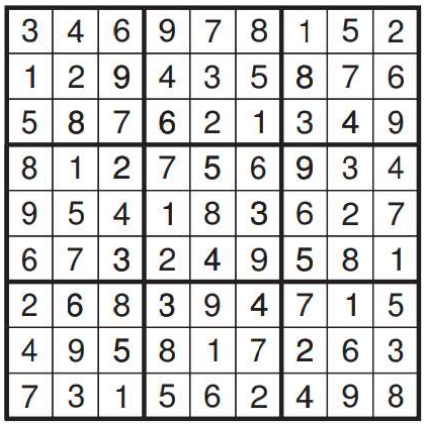
3	4	6	9	7	8	1	5	2
1	2	9	4	3	5	8	7	6
5	8	7	6	2	1	3	4	9
8	1	2	7	5	6	9	3	4
9	5	4	1	8	3	6	2	7
6	7	3	2	4	9	5	8	1
2	6	8	3	9	4	7	1	5
4	9	5	8	1	7	2	6	3
7	3	1	5	6	2	4	9	8

Puzzle 1: Classic Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.



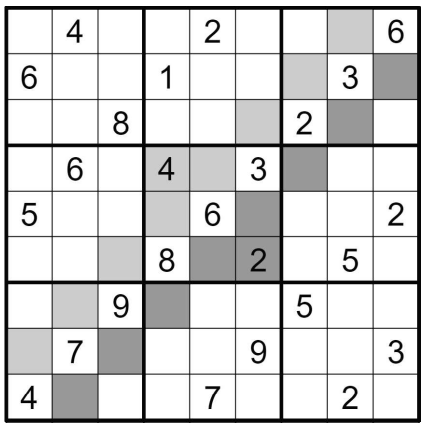
		9				8		
	8		6		1		4	
		2		5		9		
			1		3			
		3		4		5		
	6		3		4		1	
		5				2		



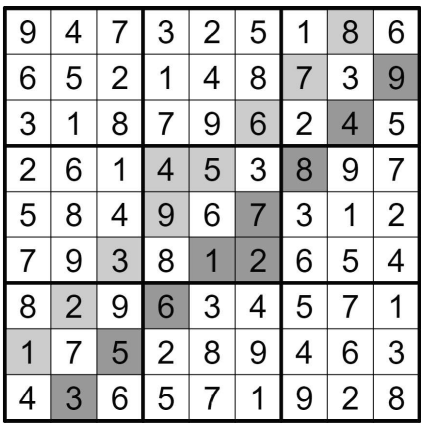
3	4	6	9	7	8	1	5	2
1	2	9	4	3	5	8	7	6
5	8	7	6	2	1	3	4	9
8	1	2	7	5	6	9	3	4
9	5	4	1	8	3	6	2	7
6	7	3	2	4	9	5	8	1
2	6	8	3	9	4	7	1	5
4	9	5	8	1	7	2	6	3
7	3	1	5	6	2	4	9	8

Puzzle 2: Extra Regions

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, the shaded regions must also contain numbers 1 to 9.



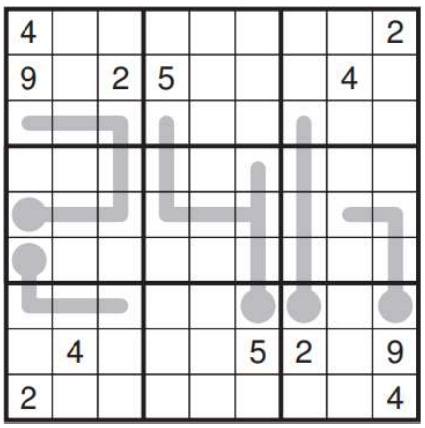
	4			2				6
6			1				3	
		8				2		
	6		4		3			
5				6				2
			8		2		5	
		9				5		
	7				9			3
4				7			2	



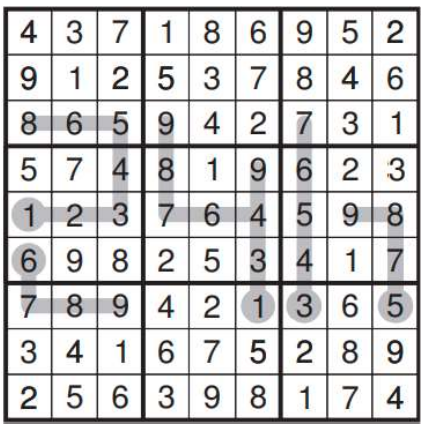
9	4	7	3	2	5	1	8	6
6	5	2	1	4	8	7	3	9
3	1	8	7	9	6	2	4	5
2	6	1	4	5	3	8	9	7
5	8	4	9	6	7	3	1	2
7	9	3	8	1	2	6	5	4
8	2	9	6	3	4	5	7	1
1	7	5	2	8	9	4	6	3
4	3	6	5	7	1	9	2	8

Puzzle 3: Thermo Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, numbers must be strictly increasing along the thermometers starting from the bulb.



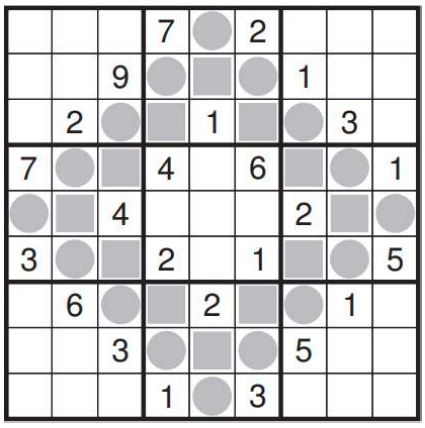
4								2
9		2	5				4	
	4				5	2		9
2								4



4	3	7	1	8	6	9	5	2
9	1	2	5	3	7	8	4	6
8	6	5	9	4	2	7	3	1
5	7	4	8	1	9	6	2	3
1	2	3	7	6	4	5	9	8
6	9	8	2	5	3	4	1	7
7	8	9	4	2	1	3	6	5
3	4	1	6	7	5	2	8	9
2	5	6	3	9	8	1	7	4

Puzzle 4: Odd Even Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, cells marked with a square must contain even digits and cells marked with circles must contain odd digits.

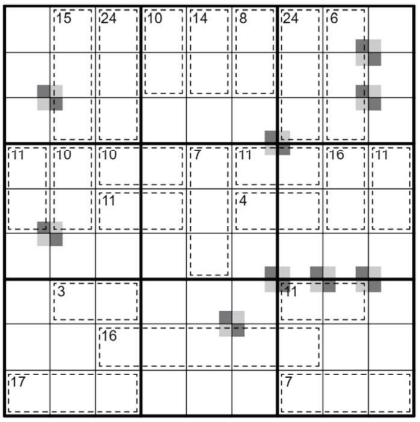


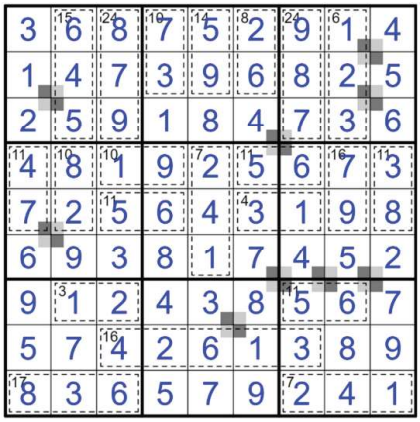
			7		2			
		9				1		
	2			1			3	
7			4		6			1
		4				2		
3			2		1			5
	6			2			1	
		3				5		
			1		3			

8	3	1	7	9	2	6	5	4
6	7	9	3	4	5	1	8	2
4	2	5	6	1	8	9	3	7
7	5	2	4	3	6	8	9	1
1	8	4	5	7	9	2	6	3
3	9	6	2	8	1	4	7	5
5	6	7	8	2	4	3	1	9
2	1	3	9	6	7	5	4	8
9	4	8	1	5	3	7	2	6

Puzzle 5: Battenburg + Killer Sudoku

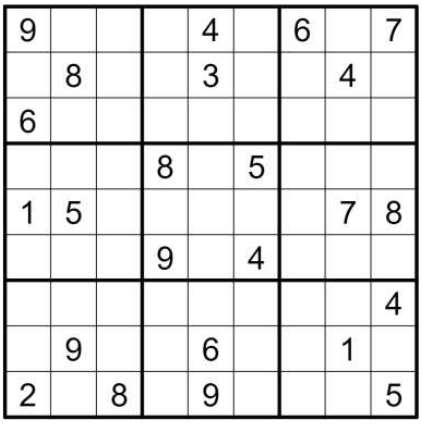
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, numbers in each caged region must add up to the given sum. Numbers may not repeat in a cage. Each 2x2 area with odd and even digits forming a checkerboard pattern is marked with a battenburg symbol. All symbols are given.



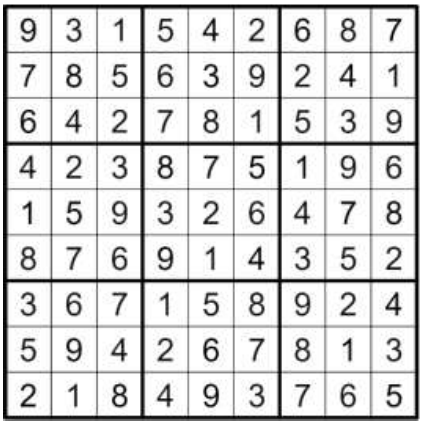


Puzzle 6: Antiknight Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, any two cells that are a chess knight's move away cannot contain the same digits.



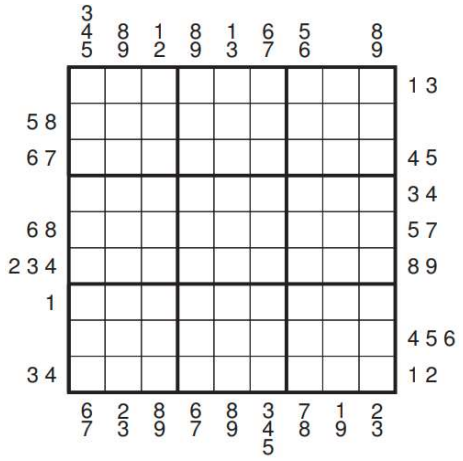
9				4		6		7
	8			3			4	
6								
			8		5			
1	5						7	8
			9		4			
								4
	9			6			1	
2		8		9				5

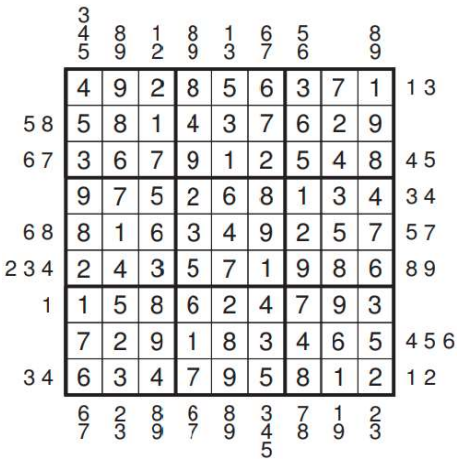


9	3	1	5	4	2	6	8	7
7	8	5	6	3	9	2	4	1
6	4	2	7	8	1	5	3	9
4	2	3	8	7	5	1	9	6
1	5	9	3	2	6	4	7	8
8	7	6	9	1	4	3	5	2
3	6	7	1	5	8	9	2	4
5	9	4	2	6	7	8	1	3
2	1	8	4	9	3	7	6	5

Puzzle 7: Outside Sudoku

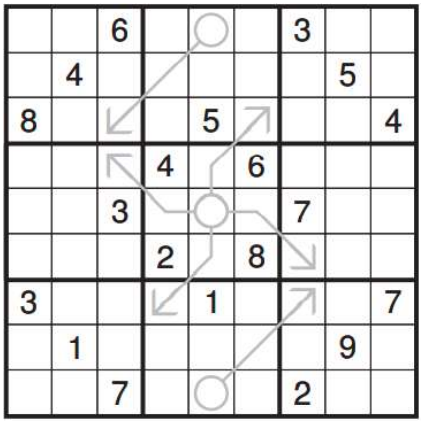
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. Each digit outside the grid appears in one of the first three cells of the corresponding direction.

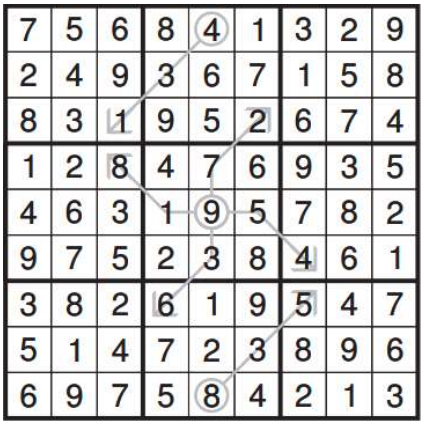




Puzzle 8: Arrow Sudoku

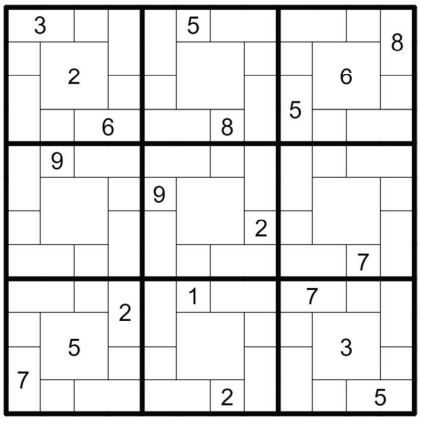
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, numbers in a circle represent the sum of the numbers where the arrow runs through. Numbers may repeat along an arrow.

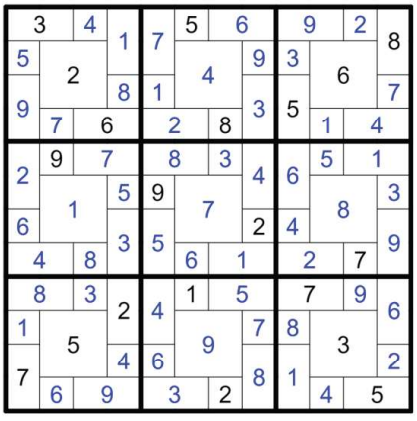




Puzzle 9: Parquet Sudoku

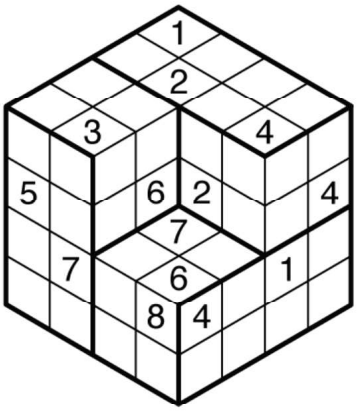
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. Some cells may belong to multiple rows or columns.

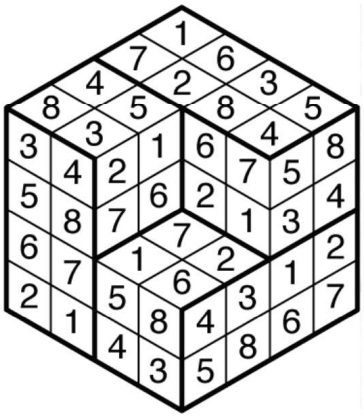




Puzzle 1: Isometric Sudoku

Fill in the grid with numbers 1-8 so that each number appears exactly once in each “row” and bolded region. Rows in Isometric Sudoku pass through opposite parallel sides of each quadrilateral. Rows may bend across the surface of the cube to travel in a “straight” line.





Puzzle 2: Battery Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, there are some batteries in the grid and all batteries must be charged. A battery is charged when the sum of the digits in the first row is even and the sum of the digits in the second row is odd or vice versa.

4				2				9
		9	8		5	3		
	8	3					2	
	9						5	
1								8
	4						9	
	3					1	7	
		4	7		2	9		
8				1				3

4	5	1	3	2	7	8	6	9
6	2	9	8	4	5	3	1	7
7	8	3	1	9	6	4	2	5
3	9	7	2	8	1	6	5	4
1	6	5	9	7	4	2	3	8
2	4	8	5	6	3	7	9	1
9	3	6	4	5	8	1	7	2
5	1	4	7	3	2	9	8	6
8	7	2	6	1	9	5	4	3

Puzzle 3: Windoku

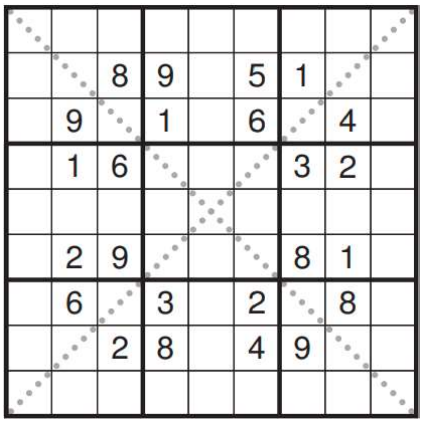
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, the shaded regions must also contain numbers 1 to 9.

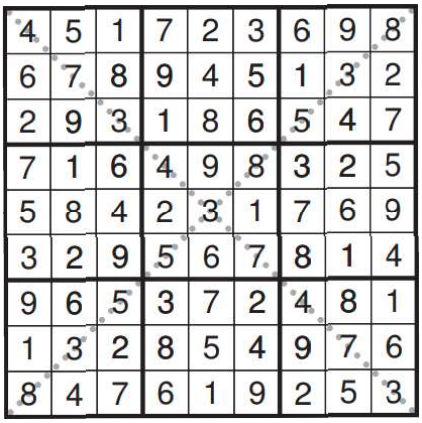
	7						9	5
		9	4		7	3		
	2						4	
	3				1		8	
7								1
	1		6				7	
	4						5	
		3	5		6	2		
2	5						3	

4	7	8	3	6	2	1	9	5
5	6	9	4	1	7	3	2	8
3	2	1	8	9	5	6	4	7
6	3	5	7	4	1	9	8	2
7	9	4	2	3	8	5	6	1
8	1	2	6	5	9	4	7	3
1	4	7	9	2	3	8	5	6
9	8	3	5	7	6	2	1	4
2	5	6	1	8	4	7	3	9

Puzzle 4: Antidiagonal

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, each main diagonal contains exactly three distinct digits.

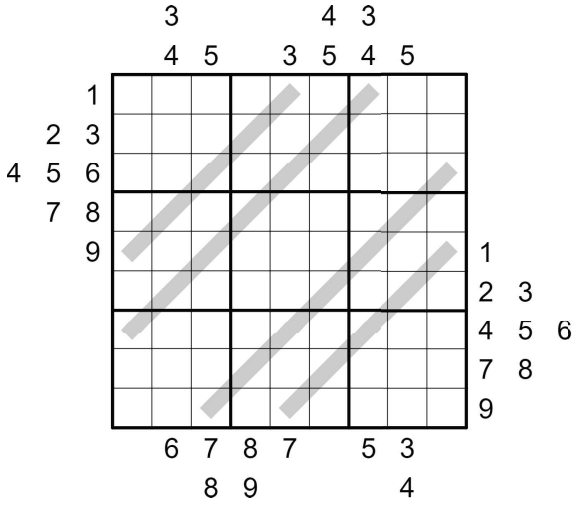


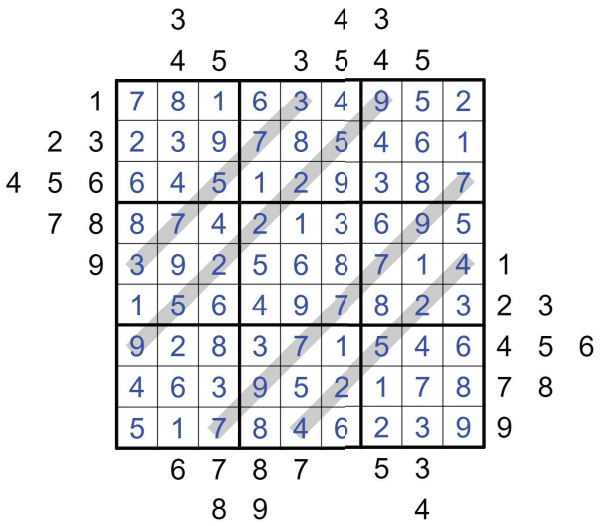


4	5	1	7	2	3	6	9	8
6	7	8	9	4	5	1	3	2
2	9	3	1	8	6	5	4	7
7	1	6	4	9	8	3	2	5
5	8	4	2	3	1	7	6	9
3	2	9	5	6	7	8	1	4
9	6	5	3	7	2	4	8	1
1	3	2	8	5	4	9	7	6
8	4	7	6	1	9	2	5	3

Puzzle 5: Outside + Palindrome Sudoku

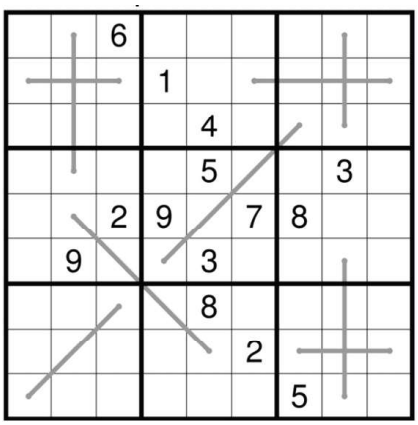
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. Each digit outside the grid appears in one of the first three cells of the corresponding direction. In addition, numbers along each grey line must form a palindromic sequence.

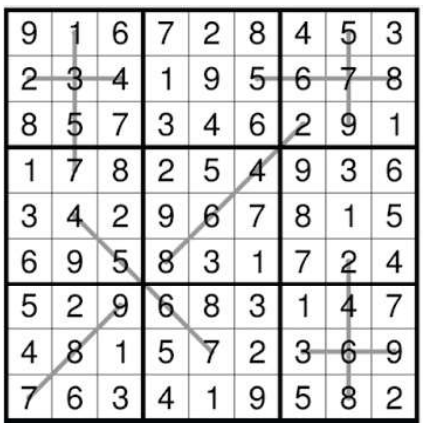




Puzzle 6: Sequences Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, the digits along each grey line must form an arithmetic sequence.

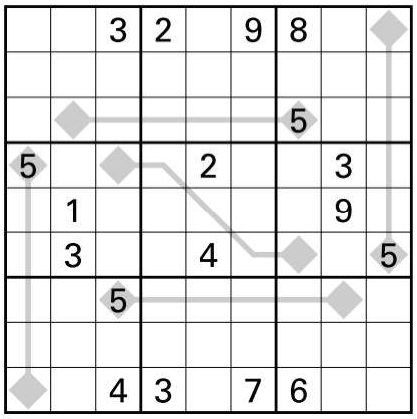


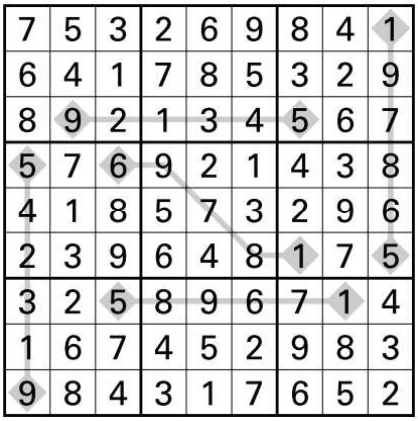


9	1	6	7	2	8	4	5	3
2	3	4	1	9	5	6	7	8
8	5	7	3	4	6	2	9	1
1	7	8	2	5	4	9	3	6
3	4	2	9	6	7	8	1	5
6	9	5	8	3	1	7	2	4
5	2	9	6	8	3	1	4	7
4	8	1	5	7	2	3	6	9
7	6	3	4	1	9	5	8	2

Puzzle 7: Lockout Lines

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, pairs of connected diamonds must contain numbers with a difference of at least 4. The numbers placed on the connecting line must not be between, or equal to, the numbers in the two diamonds.

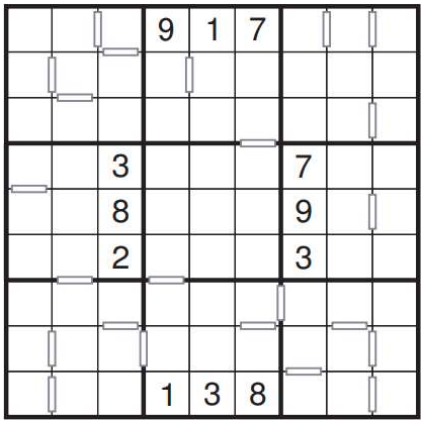


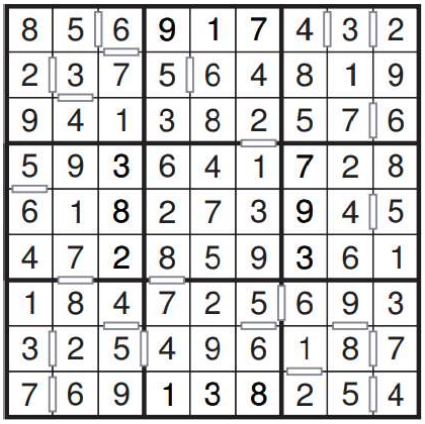


7	5	3	2	6	9	8	4	1
6	4	1	7	8	5	3	2	9
8	9	2	1	3	4	5	6	7
5	7	6	9	2	1	4	3	8
4	1	8	5	7	3	2	9	6
2	3	9	6	4	8	1	7	5
3	2	5	8	9	6	7	1	4
1	6	7	4	5	2	9	8	3
9	8	4	3	1	7	6	5	2

Puzzle 8: Consecutive Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, all pairs of cells containing consecutive numbers are marked with a black bar.





8	5	6	9	1	7	4	3	2
2	3	7	5	6	4	8	1	9
9	4	1	3	8	2	5	7	6
5	9	3	6	4	1	7	2	8
6	1	8	2	7	3	9	4	5
4	7	2	8	5	9	3	6	1
1	8	4	7	2	5	6	9	3
3	2	5	4	9	6	1	8	7
7	6	9	1	3	8	2	5	4

Puzzle 9: Position Sums

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. Clues next to the grid give the sum of the first two numbers seen from that direction, labelled A and B. Clues in the grey band further outside the grid give the sum of the digits in positions A and B for that row or column.

Ath+Bth		15	10	9	3	10	11	12	10	8
	A+B	10	9	11	4	15	11	11	8	11
8	14									
7	5									
11	10									
14	16									
10	8									
8	13									
8	12									
11	7									
7	5									

Ath+Bth		15	10	9	3	10	11	12	10	8
	A+B	10	9	11	4	15	11	11	8	11
8	14	6	8	9	1	7	5	2	3	4
7	5	4	1	2	3	8	6	9	5	7
11	10	3	7	5	2	4	9	6	1	8
14	16	7	9	3	5	2	1	8	4	6
10	8	2	6	1	8	3	4	7	9	5
8	13	8	5	4	9	6	7	1	2	3
8	12	9	3	6	4	1	8	5	7	2
11	7	5	2	8	7	9	3	4	6	1
7	5	1	4	7	6	5	2	3	8	9

Puzzle 10: Double Strand Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. There are four different lines in the grid. For each line, all palindromic pairs must have the same difference. Two of the lines have the difference of X, while the other two lines have the difference of Y. X and Y must be different and cannot be zero.

			7		3			
		1				4		
	5						2	
3				9				8
	1		3		8		5	
		5				6		
	2			4			7	
1								4
			8		7			

4	8	2	7	1	3	5	9	6
6	3	1	5	2	9	4	8	7
7	5	9	4	8	6	1	2	3
3	6	7	1	9	5	2	4	8
2	1	4	3	6	8	7	5	9
8	9	5	2	7	4	6	3	1
9	2	3	6	4	1	8	7	5
1	7	8	9	5	2	3	6	4
5	4	6	8	3	7	9	1	2

R4: Pyramid Scheme

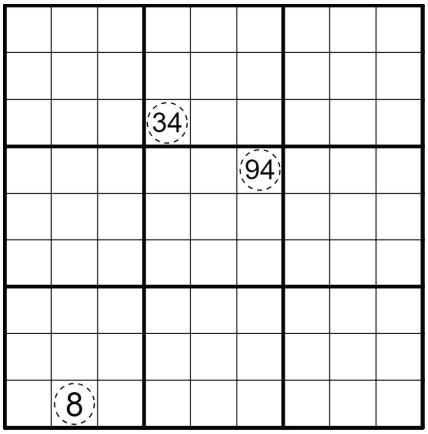
This round consists of 10 puzzles laid out in a pyramid. The first stage, the base of the pyramid, involves solving puzzles 1-4, each puzzle is fully solvable on its own.

On the next level, puzzles 5-7 will contain cells that are marked with dashed circles. In these cells, you must transfer the digits from the puzzles in the previous stage. For example; a circle in puzzle 5 has to contain a digit from either puzzle 1 or 2 (or both if they are the same digit).

The same rule applies for the rest of the pyramid.

Some puzzles may have multiple solutions but the complete round can only be solved one way.
Points are only given for correct grids that are part of the final solution.

It is recommened you keep this pyramid scheme during the test for easier navigation.



Circled digits can only be filled after solving the base puzzles correctly:
- R3C4 can either be 3 (from puzzle 1) or 4 (from puzzle 2)
- R4C6 can either be 9 (from puzzle 1) or 4 (from puzzle 2)
- R9C2 has to be 8 since both puzzle 1 and puzzle 2 has 8 in R9C2.

Puzzle 1

4	5	3	8	9	1	7	6	2
9	2	8	4	7	6	5	1	3
1	6	7	3	5	2	4	9	8
8	7	5	2	3	9	1	4	6
3	1	6	5	4	7	2	8	9
2	9	4	1	6	8	3	5	7
5	4	2	6	8	3	9	7	1
6	3	9	7	1	4	8	2	5
7	8	1	9	2	5	6	3	4

Puzzle 2

5	4	3	1	6	8	9	7	2
8	9	2	5	3	7	6	1	4
7	6	1	4	9	2	8	3	5
6	1	5	7	8	4	3	2	9
4	3	8	2	1	9	5	6	7
2	7	9	6	5	3	4	8	1
9	5	6	8	2	1	7	4	3
3	2	4	9	7	6	1	5	8
1	8	7	3	4	5	2	9	6

Puzzle 1, 4, 6, 10: Classic Sudoku

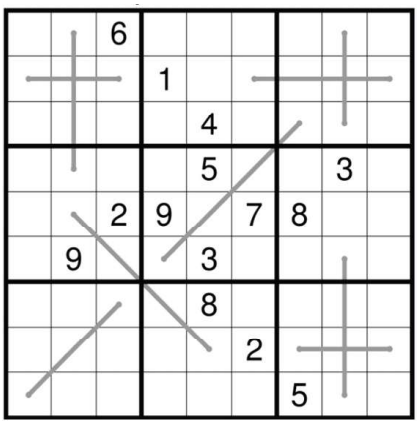
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

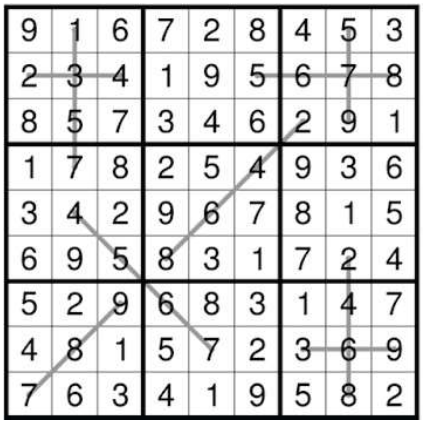
		9				8		
	8		6		1		4	
		2		5		9		
			1		3			
		3		4		5		
	6		3		4		1	
		5				2		

3	4	6	9	7	8	1	5	2
1	2	9	4	3	5	8	7	6
5	8	7	6	2	1	3	4	9
8	1	2	7	5	6	9	3	4
9	5	4	1	8	3	6	2	7
6	7	3	2	4	9	5	8	1
2	6	8	3	9	4	7	1	5
4	9	5	8	1	7	2	6	3
7	3	1	5	6	2	4	9	8

Puzzle 2: Sequences Sudoku

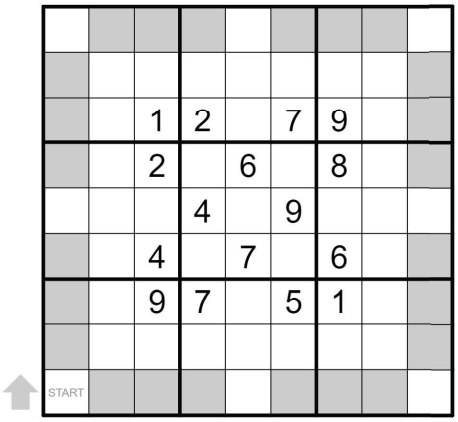
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, the digits along each grey line must form an arithmetic sequence.

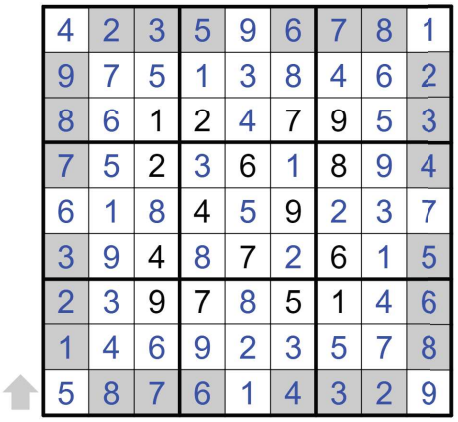




Puzzle 3: Monopoly Sudoku

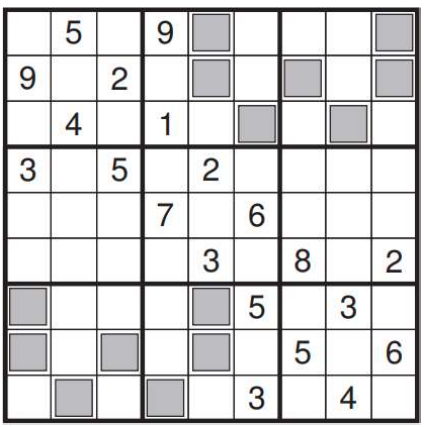
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. The grid represents the Monopoly boardgame. On each side of the board are six properties, shaded in grey. For each side, the values of the properties must increase along the clockwise direction.

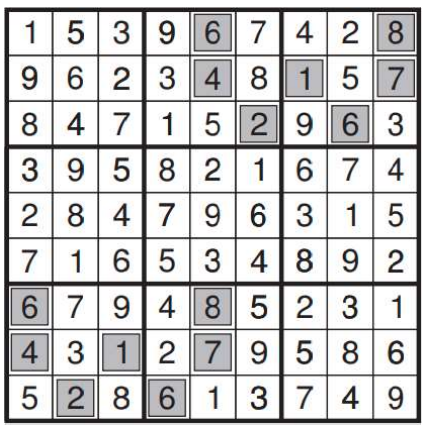




Puzzle 5: Clone Sudoku

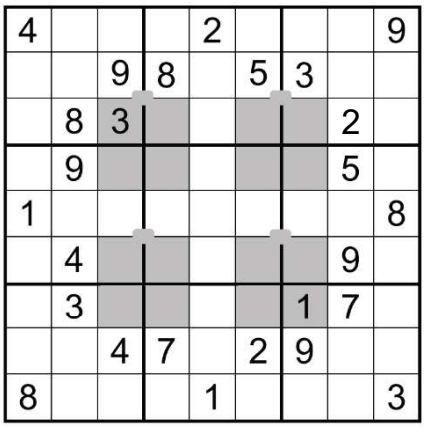
Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, digits in the same place on each shaded figure must be identical.



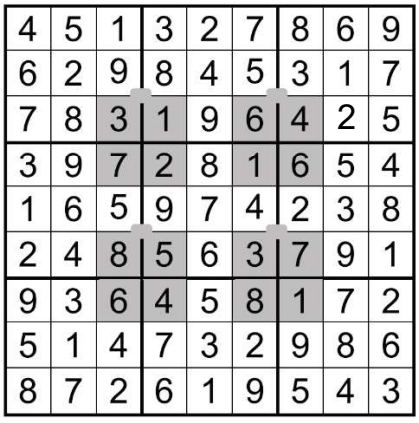


Puzzle 7: Battery Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, there are some batteries in the grid and all batteries must be charged. A battery is charged when the sum of the digits in the first row is even and the sum of the digits in the second row is odd or vice versa.



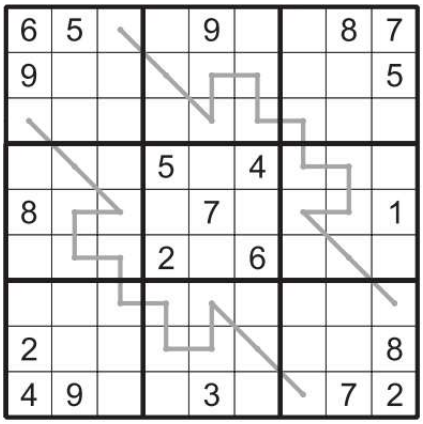
4				2				9
		9	8		5	3		
	8	3					2	
	9						5	
1								8
	4						9	
	3					1	7	
		4	7		2	9		
8				1				3



4	5	1	3	2	7	8	6	9
6	2	9	8	4	5	3	1	7
7	8	3	1	9	6	4	2	5
3	9	7	2	8	1	6	5	4
1	6	5	9	7	4	2	3	8
2	4	8	5	6	3	7	9	1
9	3	6	4	5	8	1	7	2
5	1	4	7	3	2	9	8	6
8	7	2	6	1	9	5	4	3

Puzzle 8: Palindrome Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, numbers along each grey line must form a palindromic sequence.

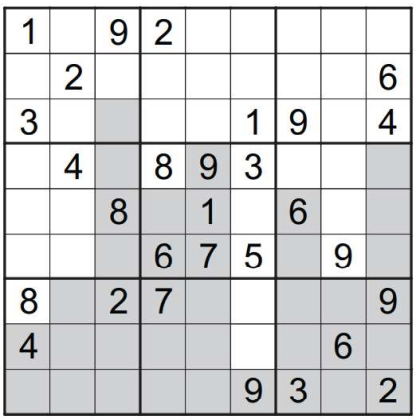


6	5			9			8	7
9								5
			5		4			
8				7				1
			2		6			
2								8
4	9			3			7	2

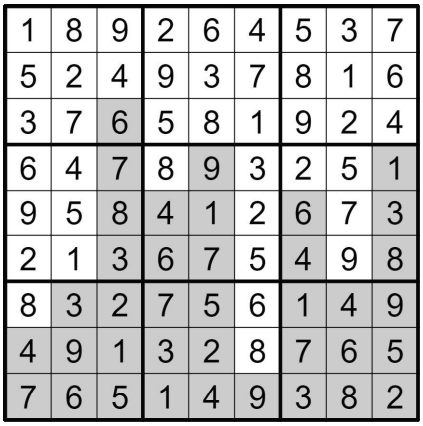
6	5	4	1	9	3	2	8	7
9	8	7	4	6	2	3	1	5
1	2	3	8	5	7	4	9	6
3	1	6	5	8	4	7	2	9
8	4	2	3	7	9	5	6	1
5	7	9	2	1	6	8	4	3
7	3	1	9	2	8	6	5	4
2	6	5	7	4	1	9	3	8
4	9	8	6	3	5	1	7	2

Puzzle 9: Equalizer Sudoku

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box. In addition, like an equalizer, the sum of the digits on a higher vertical grey bar is greater than the sum of the digits on a lower grey bar. Digits on grey bars that are equal in height must have the same sum.



1		9	2					
	2							6
3					1	9		4
	4		8	9	3			
		8		1		6		
			6	7	5		9	
8		2	7					9
4							6	
					9	3		2



1	8	9	2	6	4	5	3	7
5	2	4	9	3	7	8	1	6
3	7	6	5	8	1	9	2	4
6	4	7	8	9	3	2	5	1
9	5	8	4	1	2	6	7	3
2	1	3	6	7	5	4	9	8
8	3	2	7	5	6	1	4	9
4	9	1	3	2	8	7	6	5
7	6	5	1	4	9	3	8	2

R4: Pyramid Scheme